

Distribution Patterns of Humpback Whitefish in the Upper Tanana River Drainage

Abstract: Radio telemetry technology was employed to track the movements and locate critical habitats of adult humpback whitefish in the upper Tanana River drainage. Ninety-five transmitters were surgically implanted in humpback whitefish in three locations in the spring and summer of 2000 and 2001. Their movements were monitored for several months using boat and aerial tracking techniques. Relocations suggest that adults frequent lake habitats in the spring and early summer, and move from lake to river habitats by mid to late summer. By late fall, most tagged fish were concentrated in two discrete upstream regions of the drainage; one in the Nabesna River, 15 to 30 km upstream from its mouth, and the other in the Chisana River, 80 to 100 km upstream from its mouth. These regions are thought to be spawning areas. By winter all tagged fish had dropped back downstream into regions of the Tanana River or in the Tetlin Lake system, where they appeared to be overwintering. A selection of feeding, spawning and overwintering areas, all critical habitats for humpback whitefish, have been located. Rearing areas for juvenile fish have not been located.

Citation: Brown, R. J., C. Lunderstadt, and B. Schulz. 2002. Movement Patterns of Radio-Tagged Adult Humpback Whitefish in the Upper Tanana River Drainage. U. S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, 2001 Annual Report (Study No. 00-023). U. S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, Fairbanks, Alaska.